Fiddletown Feeder
cancel Attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Department of Ecology
Water Quality Program
FEB 17 1993

Reply to
Attn of: WD-139

February 12, 1993

Michael T. Llewelyn, Program Manager
Water Quality Program
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: Approval of Total Maximum Daily Loads (TMDLs) for Dragoon Creek (Waterbody Segment No. WA-55-1012)

Dear Mr. Llewelyn: Mike

I am pleased to approve the following TMDLs and associated wasteload allocations that were submitted by your Department to the Environmental Protection Agency (EPA) on March 9, 1992:

Waterbody Segment	Waterbody Name	TMDL Parameters
WA-55-1012	Dragoon Creek	Ammonia-Nitrogen Chlorine Total Phosphorus

A wasteload allocation of zero has been implemented through the complete removal of the city of Deer Park's treated wastewater from Dragoon Creek. The treated wastewater, which is stored and spray irrigated, is regulated under a state waste discharge permit. Although no loading capacities for Dragoon Creek were determined, ambient monitoring studies indicate that water quality standards for ammonia, chlorine, and phosphorus will be met.

By EPA's approval of these TMDLs, they are now incorporated into the state's water quality management plan.

Sincerely,

Charles E. Findley
Director, Water Division

cc: Lynn Singleton, Ecology
Steve Butkus, Ecology
Will Kendra, Ecology

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Seattle, Washington 98101

FILE COPY

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FEB 12 1993

MEMORANDUM

SUBJECT: Recommendation for TMDL Approvals

Dragoon Creek - RM 15 to 0 - Waterbody Segment No. WA-32-1012.

TMDL Parameters: Ammonia-Nitrogen, Total Phosphorus, Total Residual Chlorine

FROM: Rob Pedersen, Environmental Engineer
Environmental Characterization Program

TO: File

- TMDLs submitted 9 March 1992
- TMDL package completed 20 January 1993
  - EPA Approval Checklist
  - Document 1: Transmittal letter
  - Document 2: TMDL document
  - Document 3: Joy, J. 1981. "Dragoon Creek Receiving Water Study/Deer Park STP". Memorandum of April 22 to Carl Nuechterlein, Washington Department of Ecology, Olympia, WA.
  - Documents 4a, 4b, 4c: Implementation documentation, for the city of Deer Park sewage treatment plant - wastewater storage and land application permit:

    Document 4a: Public notice documentation for the city of Deer Park state discharge permit.

    Document 4b: State Discharge Permit No. ST 8016 city of Deer Park issued August 27, 1991, expires August 27, 1996.

Document 4c: Fact Sheet for Deer Park WWTP; dated July 25, 1991.

Transmittal letter - Complete (see Document 1)

- States that TMDLs have been established in accordance with Section 303(d)(1) of the Clean Water Act.
- **Review note: meets requirements.**

Problem Assessment - Complete (see Document 3, and 4c)

- Dragoon Creek is a Class A stream. There are no permitted point source discharges. Drainage area at RM 15 is approximately 60 square miles, consisting predominately of grazing areas for small herds of livestock and small farms. Near Deer Park (RM 15), the creek is relatively uniform, less than 11 feet wide with steep, under-cut banks except where livestock have made access. The channel is nearly all pools and runs at RM 15; the streambed is mostly clay and silt.
- Dragoon Creek's spring water sources negatively impact stream water quality. The 7Q20 at RM 0.1 was estimated at 12.2 cfs; an August, 1977 low flow, above the treatment plant, was 2.9 cfs. A 1981 report mentioned good resident trout fishing from RM 15 to 4.1.
- Receiving water studies (Document 3) examined the impact of the treatment plant discharge. Nonpoint pollution from agricultural area runoff is expected but not documented.
- Documented (November 18-19, 1980) stream impacts in Dragoon Creek due to Deer Park's WWTP were residual chlorine and ammonia toxicity problems, a significant BOD loading and possible DO standard violations, nutrient loading and a shift in benthic invertebrate community structure to more tolerant and less diverse organisms.
- **Review notes: Problem assessment provides background information, identified water quality problems for residual chlorine and ammonia toxicity, high BOD and nutrient loads from the previous wastewater treatment plant. The assessment discussed expected DO and aesthetic values impacts during the summer.**

TMDL document - Complete (see Document 2)

- The city of Deer Park (approx. pop. 2400) at RM 15, stopped discharge of treated wastewater in 1985 in

stream. Although benthic community structure was impacted by WWTP effluent, rapid recovery can be expected after effluent diversion. Notes on game fishery are also encouraging.

- **Review notes: Documentation gives a thorough analysis of downstream effects due to ammonia and oxygen demanding materials. Effluent removal will result in major reductions for instream nutrient and toxic pollutants. The discharge prohibition period will ensure WLAs of zero.**

Public participation - Complete (see Documents 4a, 4c)

- Public notice for city of Deer Park's state waste discharge permit reissuance, June 1991. News article on hearing for new WWTP, January 1991.

- **Review notes: Adequate public notice for permit reissuance and for new WWTP; TMDL proposals were not the primary purpose of the public notice.**

Enforceability - Complete (see Document 4b)

- State discharge permit (SWPD number ST 8016) required effluent storage and land disposal.

- **Review notes: Valid permit and supporting documentation.**

TMDL effectiveness plan - Complete (see Documents 2, 4a and 4b)

- State permit prohibits discharge to Dragoon Creek.

- **Review notes: Adequate permit conditions. Lagoon storage should prevent any emergency discharge to Dragoon Creek. No monitoring is planned to assess changes in nonpoint pollutant loads for compliance with the TMDLs.**

Additional Information

- Based on ambient and effluent data presented in Document 3, EPA concludes that diversion of effluent would result in water quality standard compliance for unionized ammonia-nitrogen toxicity, total residual chlorine toxicity and total phosphorus. Point source removal will achieve TMDLs for the above parameters.

  As a tributary to the Little Spokane River, Dragoon Creek is a contributor to the phosphorus loading of Long Lake, downstream of the city of Spokane,

TOTAL MAXIMUM DAILY LOAD

Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Developed pursuant to 40 CFR 130.7 and the Federal Clean Water Act

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WATERBODY SEGMENT: WA-55-1012

Dragoon Creek

(mouth at Little Spokane RM 21.3 to headwaters)

RECEIVING SYSTEM INFORMATION:

Basin: Little Spokane
County: Spokane

TMDL PARAMETER:

BOD (5-day)

APPLICABLE RULES:

WAC 173-201-045(2)(c)(viii)

SOURCES COVERED BY THIS TMDL:

Allocation Type	Source Description
WLA	Deer Park WWTP
LA	Dragoon Creek Tributaries

TMDL:

No loading capacity for 5-day biochemical oxygen demand to Dragoon Creek has been determined. The WLA for 5-day BOD has been set 0 pounds per day.

Technical Documents:

Joy, J. 1981. Dragoon Creek Receiving Water Study/Deer Park STP. Memorandum of April 22 to C. Nuechterlein. Washington Department of Ecology, Olympia, WA.

Public Participation:

The removal of the discharge from the creek was subject to a public notice and comment period, in additon to a public information meeting. Renewal of the permit was subject to a public notice and comment period.

Implementation:

The removal of the Deer Park WWTP discharge from Dragoon Creek was completed in July 1987.

Monitoring:

No ambient monitoring of Dragoon Creek is currently conducted or planned.